CLAIM AMENDMENTS

1. (CURRENTLY AMENDED) A Coriolis gyro ~~(1')~~, having a

first and a second resonator ~~(70₁, 70₂)~~, which are each in the

form of a coupled system comprising a first and a second linear

oscillator ~~(3₁, 3₂, 4₁, 4₂)~~, with the first resonator ~~(70₁)~~ being

mechanically/electrostatically connected/coupled to the second

resonator ~~(70₂)~~ such that the two resonators can be caused to

oscillate in antiphase with one another along a common

oscillation axis ~~(72)~~ , in which case the first oscillators are

each connected by means of first spring elements to a gyro frame

of the Coriolis gyro, and the second oscillators are each

connected by second spring elements to one of the first

oscillators, and the Coriolis gyro furthermore has:

- a device for production of electrostatic fields, by

means of which the alignment angle of the first spring elements

with respect to the gyro frame can be varied, and/or the

alignment angle of the second spring elements with respect to the

first oscillators can be varied,

- a device by means of which it is possible to

determine first signals for the rotation rate and quadrature

bias, which occur within the first resonator, and second signals

for the rotation rate and quadrature bias, which occur in the

second resonator,

- control loops by means of which the

alignment/strength of the electrostatic fields is regulated such that the first and the second quadrature bias are each as small as possible, and

     - a computation unit, which uses the first and second signals to determine the rotation rate, and uses an in-phase component of the electrostatic fields which compensate for the first and second quadrature biases to determine the acceleration to be measured.

     2. (CURRENTLY AMENDED) The Coriolis gyro ~~(1')~~ as claimed in claim 1, characterized in that the configurations of the first and of the second resonator ~~(70₁, 70₂)~~ are identical, with the resonators ~~(70₁, 70₂)~~ being arranged axially symmetrically with respect to one another with respect to an axis of symmetry ~~(73)~~ which is at right angles to the common oscillation axis ~~(72)~~.

     3. (CANCELED)

     4. (CANCELED)

     5. (CANCELED)

     6. (CANCELED)

7. (CURRENTLY AMENDED) A method for selective or simultaneous measurement of rotation rates and accelerations using a rotation rate Coriolis gyro ~~(1)~~ which has a first and a second resonator ~~(70₁, 70₂)~~ which are each in the form of a coupled system comprising a first and a second linear oscillator ~~(3₁, 3₂, 4₁, 4₂)~~, with the rotation rates being determined by tapping and evaluation of the deflections of the second oscillators ~~(4₁, 4₂)~~, having the following steps:

- the two resonators ~~(70₁, 70₂)~~ are caused to carry out oscillations in antiphase with one another along a common oscillation axis ~~(72)~~,

- the deflections of the second oscillators ~~(4₁, 4₂)~~ are compared with one another in order to determine an antiphase deflection component which is a measure of the rotation rate to be measured and/or in order to determine a common in-phase deflection component, which is a measure of the acceleration to be measured,

- calculation of the rotation rate/acceleration to be measured from the in-phase deflection component/antiphase deflection component<u>, in which case the common in-phase deflection component is determined as follows:</u>

<u>- a first quadrature bias is determined which occurs within the first resonator,</u>

<u>- a second quadrature bias is determined which occurs</u> .
<u>within the second resonator,</u>

<u>- the first quadrature bias is calculated using the</u>
<u>second quadrature bias in order to determine a common quadrature</u>
<u>bias component which is proportional to the acceleration to be</u>
<u>measured and represents the common in-phase deflection component</u>.

8. (CANCELED)

9. (CURRENTLY AMENDED) The method as claimed in claim $\underline{7}$
~~8~~, characterized in that electrostatic fields are produced in
order to vary the mutual alignment of the first and second
oscillators ~~(3_1, 3_2, 4_1, 4_2)~~, with the alignment/strength of the
electrostatic fields being regulated such that the first and the
second quadrature bias are each as small as possible.